

Application No. 09/787,998

Amendment dated July 19, 2004

Reply to Office Action of April 20, 2004

Attorney Docket No. 2204-002012

RESPONSE UNDER 37 CFR § 1.116

EXPEDITED EXAMINING PROCEDURE

EXAMINING GROUP 2600

REMARKS/ARGUMENTS

The examiner has rejected claims 1, 5-7, and 9 under 35 U.S.C. §103(a) as being unpatentable over Applicants' admitted prior art in view of U.S. Patent No. 6,009,913 to Kojima et al. and U.S. Patent No. 5,614,263 to Ogawa et al. The examiner states:

AAPA teaches, in the section labeled "Prior Art", page 2 lines 17 – page 3, lines 1 – 3 of the specification, that, "an Al-coated steel sheet to which an organic resin film is applied is proposed as material for a fuel tank in order to eliminate the above mentioned problems." A APA does not however teach a coating capable of protecting the fuel tank from scratches which occur during pressing wherein the coating has an acid value of 40 – 90, or wherein 1 – 50% hydrogen atoms in the carboxyl groups being substituted with an alkali metal.

Kojima teaches a resin coating providing antiscratching properties with an acid value of 10 – 160 (col 6 line 19) as described in detail in the previous Office action, paper #16. It is noted that in the previous Office action, the examiner pointed out that Kojima teaches that the resin coating is "soluble in an alkali aqueous solution" (col 6, lines 3 – 4 and col 14, paragraph 2).

Ogawa et al teach, in a "chemically adsorbed film (that) contains hydrophilic groups at outer most surface" (col 3 lines 2 – 3), substituting the hydrogen atom in COOH with an alkali metal. See col 3 lines 10+. (The examiner notes that while Ogawa does not explicitly teach replacing 1 – 50% of the H atoms with the alkali metal, since this encompasses such a large range of substitution values – up to and including 50% (ie, it would include 5%, 20%, 35%, 50%, etc.) – it would be well within the ordinary skill in the art to choose a substitution value which lies within this wide range).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the fuel tank of A APA with a protection coating with an acid value of 40 – 90 in light of the teachings of Kojima to protect the fuel tank during its formation and provide a means for removing it in an alkali aqueous media once the process is finished, and to have further substituted 1 – 50% of the H atoms in A APA/Kojima with an alkali metal, in light of the teachings of

Application No. 09/787,998
Amendment dated July 19, 2004
Reply to Office Action of April 20, 2004
Attorney Docket No. 2204-002012
RESPONSE UNDER 37 CFR § 1.116
EXPEDITED EXAMINING PROCEDURE
EXAMINING GROUP 2600

Ogawa, in order to provide a means for making the resin of Kojima, after being applied to the fuel tank of AAPA, more soluble in the alkali aqueous media, and hence easier to remove after the press forming operation.

Reconsideration is respectfully requested.

It is urged that the examiner picks and chooses from unrelated prior art to reconstruct the Applicants' claimed invention without considering the overall teachings of the references which suggest against the specific choices and the combinations thereof necessary to meet Applicants' claim 1. Moreover, the examiner ignores the significance of specific limits on the acid values and the alkali metal substitutions. Even if the combined prior art suggested the broad ranges for acid values and alkali metal substitution, it certainly does not suggest the specific limits set forth in the Applicants' claims. These limits are not arbitrary but crucial to achieving the rapid solution of the resin coating in an alkali liquid without the coated sheets suffering a tendency to stick together when stacked and also without compromising the anti-scratching ability of the resin coating. (See Applicants' specification, page 7, line 14 to page 8, line 6.) Moreover, the examiner has not dealt with the fact that the broad range of acid values disclosed in the Kojima et al. patent include unacceptable values, the broad range of alkali metal substitutions disclosed in the Ogawa et al. patent for hydrogen items in the carboxyl groups include unacceptable values, and finally there is an interplay between the acid values and the alkali metal substitutions. Every alkali substitution reduces the acid value. One arbitrarily selecting the acid value from Kojima et al. could just as easily or not choose values outside the acceptable ranges and even if per chance selecting an acid value within the acceptable range could choose a degree of alkali substitution which would move the acid values outside the workable ranges set forth in

Application No. 09/787,998
Amendment dated July 19, 2004
Reply to Office Action of April 20, 2004
Attorney Docket No. 2204-002012
RESPONSE UNDER 37 CFR § 1.116
EXPEDITED EXAMINING PROCEDURE
EXAMINING GROUP 2600

Applicants' claims. Even if there were some general suggestion (there is none) to look into the Kojima et al. and Ogawa et al. disclosures for a protective resin, the possible ways in which the two disclosures could be combined is limitless. There is no specific suggestion or motivation disclosed in either reference to pick and choose therefrom to provide a resin that satisfies the acid value and the alkali substitution limitations. This is especially so since the correct choice from the acid value set forth in Kojima et al. and the correct choice for the alkali substitutions from Ogawa et al. can result in a resin outside the Applicants' claimed ranges due to the interaction of the choices.

Finally, but not of least importance, there is no logical reason for one aware of Kojima et al. to look to Ogawa et al. for alkali metal substitution. There is no suggestion in Kojima et al. that modification of the resin disclosed therein would in any way be improved by the alkali metal substitution. Still further, if those skilled in the art were looking for a way to improve solubility in an alkali aqueous solution, he would not look to Ogawa et al. which is directed to an absorbed film that is intended to remain in place (not to be dissolved). Indeed, the specific examples of alkali metal substitution in Ogawa et al. describe the film as follows: "This film did not separate by washing." (See Column 10, line 54 to end.) Still further, Ogawa et al. do not just suggest alkali metal substitution, but substitution of "other metals" further expanding the number of choices to be picked from when attempting to arrive at the specific substitutions and ranges set forth in Applicants' claims. Again, the ranges are not arbitrary.

Application No. 09/787,998
Amendment dated July 19, 2004
Reply to Office Action of April 20, 2004
Attorney Docket No. 2204-002012
RESPONSE UNDER 37 CFR § 1.116
EXPEDITED EXAMINING PROCEDURE
EXAMINING GROUP 2600

In view of the foregoing remarks/arguments, it is urged this case is now in condition for allowance.

Respectfully submitted,

WEBB ZIESENHEIM LOGSDON
ORKIN & HANSON, P.C.

By



David C. Hanson, Reg. No. 23,024
Attorney for Applicants
700 Koppers Building
436 Seventh Avenue
Pittsburgh, PA 15219-1818
Telephone: 412-471-8815
Facsimile: 412-471-4094
E-Mail: webblaw@webblaw.com